

Serial No. 09/884,781

In the Claim

1.(currently amended) A mobile user device capable of anonymously accessing a network in the absence of a removable subscriber identity module (SIM), the mobile user device comprising:

a SIM detector detecting whether ~~access to the~~ SIM network is connected to the mobile user device prohibited; and

circuitry to communicate an International Mobile Subscriber Identity (IMSI) stored on the SIM to a base station; and

an interim identity generator coupled to the circuitry for communicating, the interim identity generator generating-constructing an interim international-mobile subscriber identity-IMSI in response to the SIM not being detected within the mobile user device, wherein the interim IMSI is generatedconstructed from information stored in the mobile communication device to simulate an IMSI for recognition by a network as an interim IMSI, wherein the circuitry for communicating transmits the interim IMSI for signaling exchanges requiring an IMSI when the SIM is not inserted within the mobile user device, in response to access to the network being prohibited, wherein the interim IMSI is utilized for signaling exchanges requiring information corresponding to the SIM card when access is prohibited.

2.(cancelled)

3.(cancelled)

4. (cancelled)

5. (cancelled)

6.(currently amended) The mobile user device of claim 1, wherein the interim IMSI ~~has a length of 15 digits and includes a predetermined unused~~ is generated from an interim mobile country code, an predetermined-unused interim mobile network code, and pseudo-random digits associated containing-with a portion of an international mobile equipment identity (IMEI) associated with the mobile user device.

7. (cancelled)

8.(currently amended) The mobile user device of claim 1, wherein the interim IMSI is generated-constructed using one or more of local information containing an international mobile equipment identity (IMEI) corresponding to the mobile user device, local information containing a pre-computed SRES, local information containing a pre-computed ciphering key, a combination of identities that reside on the

Serial No. 09/884,781

SIM card, and information stored in the mobile device that simulates portions of identities that reside on the SIM card.

9.(cancelled)

10.(currently amended) A wireless communication system comprising:
a first network;

a mobile user device exchanging data with the first network;

an interim identity generator, positioned in the mobile user device, ~~and~~
generating an interim international mobile subscriber identity (IMSI) in response to
~~access by the mobile user device being prohibited~~ a subscriber identity module not
being detected by the mobile user device;

a first radio access network positioned along a first data path extending
between the mobile user device and the first network, the first radio access network
transmitting and receiving data exchanged between the mobile user device and the first
network; and

a first user identity module, positioned along the first data path, detecting the
presence of the interim IMSI ~~and SIM IMSI~~, the first user identity module routing
interim IMSI signaling to an interim home location register (HLR) and SIM IMSI to a
second HLR, wherein the interim IMSI is utilized for signaling exchanges requiring
information corresponding to a SIM card while the SIM is not positioned within the
mobile user device access is prohibited.

11. (cancelled)

12.(currently amended) The wireless communication system of claim 10,
~~further comprising:~~

~~a first home location register for signaling exchanges utilizing an IMSI accessed from~~
~~the SIM card in response to access by the mobile user device being prohibited; and~~
~~a second home location register for signaling exchanges utilizing the interim IMSI,~~
~~wherein the first user identity module directs the interim IMSI to the second home~~
~~location register, and wherein the second home location register computes and~~
~~transmits an authentication response triplet to the mobile user device upon receipt of~~
~~the interim IMSI.~~

13.(original) The wireless communication system of claim 10, wherein the
first data path is a packet-switched data path.

Serial No. 09/884,781

14.(original) The wireless communication system of claim 10, wherein the first data path is a circuit-switched data path.

15.(original) The wireless communication system of claim 10, further comprising:

a second network; and

a second user identity module positioned along a second data path extending between the mobile user device and the second network, the second user identity module detecting the presence of the interim IMSI.

16.(currently amended) The wireless communication system of claim 15, further comprising:

~~a first home location register for signaling exchanges utilizing an IMSI accessed from the SIM card in response to access by the mobile user device being prohibited; and a second home location register for signaling exchanges utilizing the interim IMSI,~~ wherein the first user identity module and the second user identity module direct the interim IMSI to the second home location register, and wherein the second home location register computes and transmits an authentication response triplet to the mobile user device upon receipt of the interim IMSI.

17.(currently amended) The wireless communication system of claim 16, wherein the first data path is a packet-switched data path and the second data path is a circuit-switched data path, and the mobile user device is capable of transmitting data along at least one of the first data path and the second data path.

18.(currently amended) The wireless communication system of claim 16, wherein the first data path is a packet-switched data path and the second data path is a circuit-switched data path, and the mobile user device is capable of transmitting data along at least one of the first data path and the second data path.

19.(original) The wireless communication system of claim 16, further comprising a second radio access network positioned along a third data path extending between the mobile user device and the first network, and along a fourth data path extending between the mobile user device and the second network, wherein the first network is a packet-switched data network and the second network is a circuit-switched data network.

20.(currently amended) The wireless communication system of claim 16, wherein the interim IMSI has a length of 15 digits and includes ~~a predetermined~~

Serial No. 09/884,781

~~unused~~an interim mobile country code, a ~~predetermined-unused~~an interim mobile network code, and pseudo-random digits associated containing a portion of an international mobile equipment identity (IMEI) associated with the mobile user device.

21.(currently amended) The wireless communication system of claim 2019, wherein the first data path and the third data path are packet-switched data paths, the second data path and the fourth data path are circuit-switched data paths, and the mobile user device is capable of transmitting data along the packet-switched data path and the circuit-switched data path.

22.(currently amended) The wireless communication system of claim 21, wherein interim IMSI is generated using one or more of local information containing an international mobile equipment identity (IMEI) corresponding to the mobile user device, ~~local information containing a pre-computed SRES, local information containing a pre-computed ciphering key, a combination of identities that reside on the SIM card, and portions of identities that reside on the SIM card.~~

23.(currently amended) A method of anonymous network access by a mobile user device ~~when network access is prohibited~~, comprising:

~~detecting network access being prohibited~~detecting whether a subscriber identity module (SIM) is present; and

when the SIM is not present, generating constructing an interim international mobile subscriber identity (IMSI) in response to network access being prohibited; and transmitting packet data messages using the constructed interim IMSI when the SIM is not present.

24.(currently amended) The method of claim 22, wherein the interim IMSI has a length of 15 digits and includes a ~~predetermined-unused~~interim mobile country code, a ~~predetermined-unused~~interim mobile network code, and pseudo-random digits associated ~~containing with~~ a portion of an international mobile equipment identity (IMEI) associated with the mobile user device.

25.(currently amended) The method of claim 2422, wherein the interim IMSI is generated using one or more of local information containing an international mobile equipment identity (IMEI) corresponding to the mobile user device, local information containing a pre-computed SRES, local information containing a pre-computed ciphering key, a combination of identities that reside on the SIM card, and portions of identities that reside on the SIM card.

Serial No. 09/884,781

26.(original) The method of claim 25, further comprising the steps of:
detecting whether a signaling message includes the interim IMSI;
routing the signaling message to a first home location register in response to the
signaling message including the interim IMSI and to a second home location register in
response to the signaling message not including the interim IMSI; and
computing and transmitting an authentication response triplet from the first home
location register to the mobile user device.

27.(cancelled)

28.(new) A mobile user device, comprising:

a SIM detector detecting whether the SIM is connected to the mobile user
device;

circuitry to communicate an International Mobile Subscriber Identity (IMSI)
stored on the SIM; and

an interim identity generator coupled to the circuitry to communicate, the
interim identity generator generating an interim IMSI in response to the SIM not being
detected within the mobile user device, wherein the interim IMSI is generated from
information stored in the mobile communication device to simulate an IMSI and
wherein the circuitry for communicating selectively transmits the interim IMSI in
packet communications when the SIM is not inserted within the mobile user device.

29.(new) The mobile user device according to claim 28, wherein the
interim IMSI is a constructed identity from a plurality of values in the user device.

30.(new) The mobile user device as defined in claim 1, wherein the
circuitry for communicating generates an interim IMSI using two values stored in the
mobile.

31.(new) The mobile user device as defined in claim 1, wherein the
circuitry for communicating generates an interim IMSI using two codes stored in the
mobile.

32.(new) The mobile user device as defined in claim 1, wherein the
circuitry for communicating generates an interim IMSI using the IMEI and a code
stored in the mobile.

33.(new) A wireless communication system comprising:
a first network;

Serial No. 09/884,781

a first radio access network positioned along a first data path extending between a mobile user device and a first network, the first radio access network transmitting and receiving data exchanged between the mobile user device and the first network; and

a first user identity module, positioned along the first data path, detecting interim IMSI and SIM IMSI, the first user identity module routing interim IMSI attached signaling to an interim home location register (HLR) and SIM IMSI to another HLR, wherein the interim IMSI is utilized for signaling exchanges requiring information corresponding to the SIM IMSI while the SIM is not positioned within the mobile user device.